

WHAT IS CLAIMED IS:

1. A transport system, the system comprising:
a source having a number of encoders configured to packetize
broadcast television signals; and
5 a bi-directional data communication unit (BDCU) located remotely
from the source and configured to communicate packetized data signals between
customer equipment (CE) and a network according to data transmission protocols,
the BDCU including a multiplexer for integrating the packetized television signals
with the packetized data signals for transport to the CE in an integrated transport
10 stream defined as a function of the data transmission protocols.
2. The system of claim 1 wherein the source includes at least one
multiplexer configured to combine the packetized television signals into a multiple
program transport stream (MPTS) prior to transport to the BDCU.
3. The system of claim 2 further comprising a network
15 communicator configured to encapsulate the MPTS for network communication prior
to transport to the BDCU.
4. The system of claim 3 further comprising a packet-switching
network for transporting the encapsulated MPTS from the source to the BDCU.
- 5 The system of claim 1 further comprising a video server in
20 configured for packetizing streaming video and wherein the multiplexer of the
BDCU is configured to integrate the packetized streaming video with the packetized
television signals and data signals for transport to the CE in the integrated transport
stream.
6. The system of claim 5 further comprising a network
25 communicator configured to encapsulate the packetized streaming video signals for
network communication prior to transport to the BDCU.

7. A method of providing multimedia signals from a source to customer equipment (CE) in a system having a bi-directional data communication unit (BDCU) configured for communicating data signals between the CE and a network, the method comprising:

- 5 receiving the multimedia signals at the BDCU;
integrating the received multimedia signals with a BDCU transport;
and
transmitting the integrated transport from the BDCU to the CE.

8 The method of claim 7 further comprising encapsulating the
10 multimedia signals for network communication and transmitting the encapsulated multimedia signals over the network to the BDCU for integration with the data BDCU transport.

9. The method of claim 8 further comprising encapsulating the multimedia signals according to internet protocols (IP).

10. The method of claim 9 further comprising configuring the
15 multimedia signals according to real-time transport protocols (RTP) prior to encapsulation.

11. The method of claim 10 further comprising configuring the
RTP multimedia signals according to user datagram protocols (UDP) or transmission
20 control protocols (TCP) prior to encapsulation.

12. The method of claim 7 further comprising multiplexing the multimedia signals into a transport and transmitting the transport to the BDCU for integration with the BDCU transport.

13. The method of claim 12 further comprising configuring the
25 transport according to MPEG-2 protocols.

14. The method of claim 7 further comprising configuring the multimedia signals to include audio and video elements.

15. The method of claim 7 further comprising configuring the multimedia signals to include program specific information (PSI) or system
5 information (SI).

16. The method of claim 7 further comprising configuring the BDCU for communicating the integrated signals according to data over cable service interface specifications (DOCSIS) transport.

17. A method of transporting broadcast television signals, the
10 method comprising:
packetizing the television signals;
integrating the television packets into a DOCSIS transport; and
transporting the packetized television signals through the DOCSIS
transport to customer equipment (CE).

18. The method of claim 17 further comprising multiplexing the
15 packetized television signals into a MPEG-2 transport at a cable headend,
transmitting the MPEG-2 transport from the headend to the a cable modem
termination station (CMTS), and integrating the television packets carried in the
MPEG-2 transport with the DOCSIS transport at the CMTS.

19. The method of claim 18 further comprising encapsulating the
20 MPEG-2 transport stream according to internet protocols (IP) and transporting the
MPEG-2 transport from the headend to the CMTS over a packet switching network
as a function of the IP.

20. A cable system for transporting broadcast television signals,
25 the system comprising:
a headend configured to packetize the television signals;

a cable modem termination station (CMTS) in communication with the headend for integrating the television packets into a DOCSIS transport; and customer equipment (CE) configured to recover the packetized television signals from the DOCSIS transport.

5 21. The system of claim 20 wherein the headend includes a multiplexer for combining the packetized television signals into a MPEG-2 transport for output to the CMTS.

 22. The system of claim 21 further comprising a network communicator in communication with the headend and a packet switching network
10 associate with the headend, the network communicator configured to encapsulate the MPEG-2 transport stream according to internet protocols (IP) for transport over the packet switching network to the CMTS.

 23 The system of claim 20 wherein headend includes a video server configured to packetize streaming video signals and wherein the CMTS is
15 configured to integrated the streaming video signals with the television packets into the DOCSIS transport.

 24. The system of claim 23 further comprising a network communicator in communication with the headend and a packet switching network
20 associate with the headend, the network communicator configured to encapsulate the packetized streaming video signals according to internet protocols (IP) for transport over the packet switching network to the CMTS.